ATLANTIC COAL GAS SITE
(Atlantic, Iowa)

GENERAL DESCRIPTION

The Atlantic Coal Gas site is A 0.88-acre site located on Lots 2 through 12 in Block 71 on the northwest corner of Poplar and Second Streets in the city of Atlantic, Cass County, Iowa. This location is platted in the NE 1/4 of the SW 1/4 of Section 5, T76N, R36W. The site occupies three adjacent properties, with different owners. The original three owners are (1) Richard G Knudsen, Jr. and Mary Jo Haas; (2) Owen A Meredith and Catherine E. Meredith; and (3) the city of Atlantic. In December 1998, the IDNR approved the sale of the Meredith's property to the Atlantic Bottling Company. As a condition for the IDNR's approval of the sale, Atlantic Bottling agreed to restrict use of the property to a parking or traffic area. The site was entered on the Registry in March 1990.

SITE CLASSIFICATION

The site is classified "b" in accordance with 455B.427.3. Hazardous substances have been disposed of at the site, posing a significant threat to the environment

TYPE AND QUANITY OF HAZARDOUS WASTE

The Atlantic Gas Company operated a coal gasification plant at the site between 1905 and 1925. During that time, an unknown quantity of coal tar was disposed at the site and contaminated the on-site soil. The current occupant of the south half of the site has six underground storage tanks, which were installed in 1928 and 1940. The tanks stored motor vehicle fuels. Leakage from the UST's formed a layer of free product on the top of the water table and has come in contact with the coal tar, dissolving part of it, and accelerating its migration. The groundwater at the site is now contaminated with the following hazardous substances: 2,100ug/l benzene, 4,500 ug/l toluene, 5,600 ug/l xylenes, 12 ug/l acenaphthene, and 12 ug/l acenaphthylene.

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

The site is located within Atlantic, Iowa and located 0.6 mile from well field. Troublesome Creek is located approximately 0.7 mile north of the site, flowing west to its confluence with the East Nishnabotna River, which is located 0.7 mile west of the site.

.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The state is the lead agency at the site. The IDNR and Iowa Electric and Light Company (IES Utilities) entered a consent decree to investigate and cleanup the site. This is a two-phase project. Phase I involved groundwater remediation and free product removal. Phase II involved source removal and contaminated soil removal.

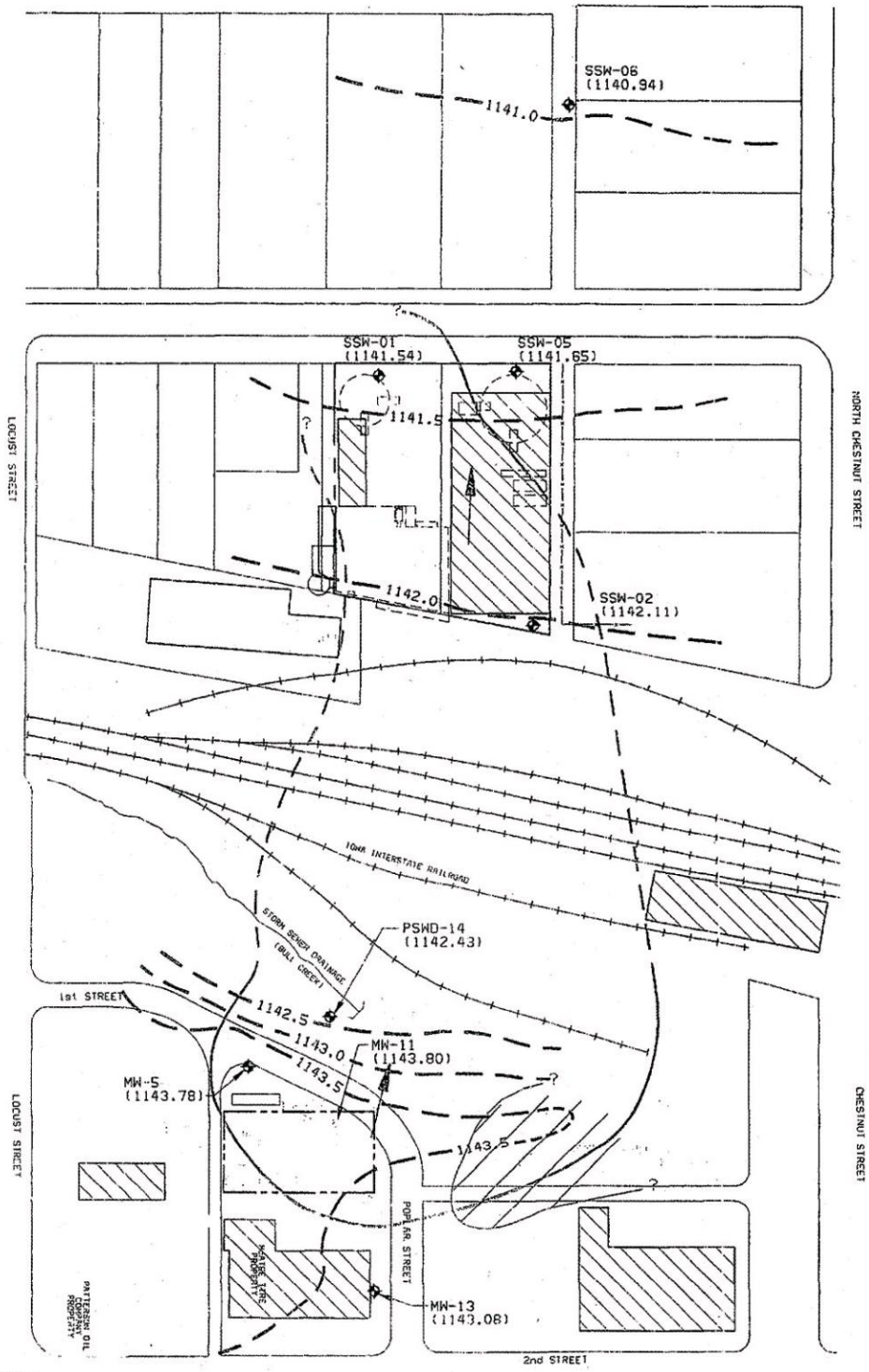
The Phase I groundwater treatment and free product recovery system was completed in the summer of 1991. Extraction of pumpable material from the gas holder began in the third quarter of 1992.

The Phase II Remedial Investigation/Feasibility Study (RI/FS) reports were submitted to the department in April 1993 (RI) and May 1993 (FS). The Remedial Action Plan for the removal of non-pumpable contaminated material from within and adjacent to the gas holder was submitted to the department in September 1994. An Interim Remedial Action was undertaken at the site in the spring of 1996. Pure coal tar was removed from the gas holder structure at the site and contaminated soil was removed from the vicinity of the gas holder.

Remediation of the MGP site has been suspended although ground water monitoring is ongoing. The focus of the remediation has shifted to two nearby leaking underground storage tank (LUST) sites because the groundwater contamination from the LUST sites is commingled with the MGP site. Tier II assessments completed for both LUST sites indicated that remediation is necessary. Quarterly ground water monitoring in support of site closure and to demonstrate natural attenuation is being conducted.

2007: Significant action includes submittal of annual groundwater monitoring report to IDNR and the installation of an soil vapor extraction (SVE) system at the Gasoline Alley LUST site, which impacts the MGP site. Monthly passive recovery (hand bailing) of free product continues at the other LUST site.

2008: Annual Ground Water Monitoring on going



LEGEND:

MW-5 ◆	EXISTING MONITORING WELL
	GROUND WATER SAMPLE NOT COLLECTED SEPTEMBER 1999
	AREA WHERE FLOATING PRODUCT WAS OBSERVED, SEPTEMBER 1999
	EXISTING STRUCTURES
	FORMER STRUCTURES
	FENCE
1136.0	GROUND WATER CONTOURS AND ELEVATION
	GROUND WATER FLOW DIRECTION
	EXTENT OF GROUND WATER CONTAMINANT PLUME BASED ON SEPTEMBER 1999 MONITORING DATA
	ESTIMATED EXTENT OF GROUND OF GROUND WATER CONTAMINANT PLUME BASED ON EXTRAPOLATION AND HISTORICAL GROUND WATER MONITORING DATA

NOTES:

1. WELLS MW-6 & MW-3 WERE NOT USED IN GROUND WATER CONTOURING BECAUSE OF THEIR ANOMALOUS VALUES BOTH WERE HIGHER THAN SURROUNDING WELLS.
2. CONTOUR INTERVAL 0.5 FT
3. EXTENT OF GROUND WATER CONTAMINANT PLUME BASED ON IONR ACTION LEVEL OF 0.2 MICROGRAMS PER LITER PER INDIVIDUAL POLYNUCLEAR AROMATIC HYDROCARBON.

FIGURE 3
GROUND WATER ELEVATION CONTOURS AND EXTENT OF GROUND WATER CONTAMINATION SEPTEMBER 1999
ATLANTIC MGP SITES

100' 50' 0 100' 200'